

REMARKS

Reconsideration and withdrawal of the rejections to the claims set forth in the Office Action of June 4, 2003 are respectfully requested in view of the following remarks.

Status of the claims

Claims 1-10 were pending.

Claims 1, 2, 5, 6, and 7 stand rejected under 35 U.S.C. § 102.

Claims 1, 3, and 8 stand rejected under 35 U.S.C. § 103.

Claims 4, 9, and 10 are objected to.

Claims 1 – 4 have been canceled without prejudice.

Claims 5, 6, 8, and 9 have been amended.

New claims 11-32 are presented for examination.

None of the amendments to the claims introduces new matter.

Drawing Objections

The Examiner has objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5). Applicant has amended the specification to delete the reference sign “1,” on page 4, line 15. Withdrawal of the objection is respectfully requested.

Specification Title

Applicant has amended the title of the invention to “LED Lamp with Light-Emitting Junctions Arranged in a Three-Dimensional Array.”

Claim Objections

The Examiner has objected to claims 4, 9, and 10 under 37 C.F.R. 1.75(c) as being in improper form. Claim 4 has been canceled without prejudice, and thus the objection to claim 4 is moot. Applicant has amended claim 9 to correct the multiple dependency. Moreover, claim 9

is dependent on what is now believed to be allowable claim 5. Withdrawal of the objection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 1, 2, and 5 under 35 U.S.C. § 102 being anticipated by U.S. Patent No. 3,875,456 to Kano et al. (“the Kano reference”). Reconsideration and withdrawal of this rejection are respectfully requested based on the following remarks.

Applicant has canceled claims 1 and 2 without prejudice. Thus, the rejection to these claims is moot.

As defined in amended claim 5, the claimed invention is concerns a lamp including a plurality of light emitting junctions. The light emitting junctions are mounted to at least one curved conductor so as to adopt “a three-dimensional array.” Further, claim 5 requires that “the at least one curved conductor has a curved conducting surface and the junctions are mounted to the curved conducting surface.”

The Kano reference is directed to an multicolor semiconductor lamp. It discloses a plurality of LED’s disposed close to one another. The Figures in the Kano reference show the junctions being mounted on a flat part of the curved conductor in a one dimensional array (ie. side by side). (See the Kano reference, Figs. 1-5) The Kano reference, thus, does not disclose or suggest, either alone or in combination with other references of record, “a plurality of light emitting junctions mounted to at least one curved conductor so as to adopt a three-dimensional array, wherein the at least one curved conductor has a curved conducting surface and the junctions are mounted to the curved conducting surface,” as recited in claim 5 of the instant application in combination with the other elements recited therein. In view of the complete absence of this claim limitation in the Kano reference, and thus the fact that the Kano reference

does not disclose each and every element of either claim 5, either expressly or inherently, there can be no anticipation of the claimed invention by the Kano reference. Accordingly, the rejection under 35 U.S.C. § 102(b) should be withdrawn and claim 5 should be allowed.

The Examiner has rejected claim 6 under 35 U.S.C. § 102 being anticipated by U.S. Patent No. 5,218,233 to Takahashi ("the Takahashi reference"). Reconsideration and withdrawal of this rejection are respectfully requested based on the following remarks.

As defined in amended claim 6, the claimed invention is concerns a lamp including a plurality of light emitting junctions. The light emitting junctions are mounted to at least one curved conductor so as to adopt "a three-dimensional array." Further, claim 6 requires that "the at least one curved conductor comprises recesses for receipt of respective ones of the junctions."

The Takahashi reference is directed to an LED lamp. It discloses a particular lead arrangement for connecting the leads to a plurality of junctions. The junctions are shown as arranged in a two-dimensional array. (See the Takahashi reference, Figs. 3-9) Further, the Takahashi reference does not disclose recesses for receipt of respective ones of the junctions. The Takahashi reference, thus, does not disclose or suggest, either alone or in combination with other references of record, "a plurality of light emitting junctions mounted to at least one curved conductor so as to adopt a three-dimensional array, wherein the at least one curved conductor comprises recesses for receipt of respective ones of the junctions," as recited in claim 6 of the instant application in combination with the other elements recited therein. In view of the complete absence of this claim limitation in the Takahashi reference, and thus the fact that the Takahashi reference does not disclose each and every element of either claim 6, either expressly or inherently, there can be no anticipation of the claimed invention by the Takahashi reference.

The Examiner has rejected claims 6 and 7 under 35 U.S.C. § 102 being anticipated by U.S. Patent No. 5,999,151 to Michael (“the Michael reference”). Reconsideration and withdrawal of this rejection are respectfully requested based on the following remarks.

As defined in amended claim 6, the claimed invention is concerns a lamp including a plurality of light emitting junctions. The light emitting junctions are mounted to at least one curved conductor so as to adopt “a three-dimensional array.” Further, claim 6 requires that “the at least one curved conductor comprises recesses for receipt of respective ones of the junctions.”

The Michael reference is directed to a pixel having a light emitting surface. It discloses a pixel arrangement having two frames (14 and 16), each carrying a one-dimensional (linear) array of junctions on cathodes 26, 27 with a slightly concave upper surface to which the junctions appear to be mounted. (See the Michael reference, Figs. 1-3) The Michael reference, however, does not disclose or suggest arranging the light emitting-junctions in a three-dimensional array. Even when the one-dimensional arrays of each of frames 14 and 16 may are placed side-by-side, this might at most constitute a two-dimensional array. Further, the Michael reference does not disclose or suggest a curved conductor comprising recesses for receipt of respective ones of the junctions. Even if the top surface of cathode 26 or 27 of the Michael reference is considered to constitute a curved conductor, the Michael reference does not disclose or suggest recesses in the curved conductor for receiving respective junctions.

Regarding claim 7, the Michael reference does not disclose or suggest configuring a curved conductor so that the junctions are arranged substantially on an imaginary spheroid surface. The upper surface of cathodes 26, 27 appears to be only two-dimensionally curved. (See the Michael reference, Figs. 1-3) Such a curvature is not the same as the three-dimensional curvature which is given by a spheroid surface.

Accordingly, the rejections under 35 U.S.C. § 102(b) should be withdrawn and claims 6 and 7 should be allowed.

Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claims 1 and 3 under 35 U.S.C. § 103 as being unpatentable over the Takahashi reference in view of U.S. Patent No. 6,409,938 to Comanzo (“the Comanzo reference”). Claims 1 and 3 have been canceled without prejudice. Thus, the rejection to these claims is moot.

The Examiner has rejected claim 8 under 35 U.S.C. § 103 as being unpatentable over the Michael reference in view of U.S. Patent No. 4,255,688 to Nagasawa (“the Nagasawa reference”). Reconsideration and withdrawal of this rejection are respectfully requested based on the following remarks.

Claim 8 depends from what is believed to be allowable claim 6 and is therefore patentable over the Michael reference in view of the Nagasawa reference.

New Claims

Applicant has presented new claims 11 - 32 for examination. These claims are dependent directly or indirectly on what is believed to be allowable parent claim 5 or parent claim 6. Support for these new claims can be found in Figs. 9 to 15 and the corresponding descriptions in the text.

Conclusion

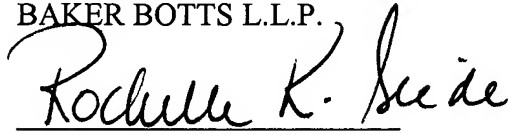
In view of the foregoing, the application is now believed to be in condition for formal allowance. Prompt and favorable action is respectfully requested. Applicant does not believe that any additional fee is required in connection with the submission of this document. However, should any additional fee be required, or if any overpayment has been made, the Commissioner

is hereby authorized to charge any fees, or credit or any overpayments made, to Deposit Account
02-4377.

Respectfully submitted,

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